

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

1. (Currently Amended) A method for ~~the separation of separating~~ particles (20, 21, 22) in a compartment (30) of a fluidic microsystem (100), ~~with comprising~~ the steps:

[[[-]]] ~~movement of~~moving through the compartment a liquid (10) in which particles (20, 21, 22) are suspended with a predetermined direction of flow, ~~through the compartment (30), and~~ [[[-]]] ~~generation of~~generating a deflecting potential ~~in which~~wherein at least a part of the particles (20, 21, 22) is moved relative to the liquid in a direction of deflection, characterized by the further steps:

[[[-]]] ~~generation of~~generating at least one focusing potential, so that at least a part of the particles is moved opposite to the direction of deflection relative to the liquid by dielectrophoresis under ~~the~~an effect of high-frequency electrical fields, and

[[[-]]] guiding of particles with different electrical, magnetic or geometric properties into different flow areas (11, 12) in the liquid, ~~to thereby separate the particles.~~

2. (Currently Amended) The method according to claim 1, ~~in which~~wherein the direction of deflection deviates from the direction of flow and comprises a component transversely to the direction of flow.

3. (Currently Amended) The method according to claim 2, ~~in which~~wherein the direction of deflection runs perpendicularly to the direction of flow toward at least one of a plurality of lateral walls of the compartment, the deflecting potential is generated by electrical, magnetic, optical, thermal and/or mechanical forces, and the flow areas comprise flow paths (11, 12) corresponding to different potential minima that are formed for the particular particles by the superposing of the deflecting and focusing potentials during the passage through the compartment in ~~the~~a temporal average.

4. (Currently Amended) The method according to claim 3, ~~in which~~wherein the deflecting potential is formed by a direct voltage field under whose action the particles are drawn by electrophoresis to at least one of the lateral walls of the compartment-(30).

5. (Currently Amended) The method according to claim 4, ~~in which~~wherein the particles comprise biological cells of which at least a part is lysed under ~~the~~ action of the direct voltage field.

6. (Currently Amended) The method according to claim 3, ~~in which~~wherein the liquid-(10) comprises a suspension of biological material containing biological cells and cell components and whereby a separation of the biological cells from the cell components takes place under ~~the~~ action of ~~the~~a direct voltage field.

7. (Currently Amended) The method according to claim 4, wherein electrodes-(40) are arranged on walls-(31-34) of the compartment-(30), ~~which~~said electrodes ~~are~~being loaded with electrical fields for generating the dielectrophoresis and the electrophoresis.

8. (Currently Amended) The method according to ~~at least one of the preceding claims~~claim 1, ~~in which~~wherein the deflecting and focusing potentials are generated alternating in time in at least one section of the compartment-(30) or geometrically alternating in different successive sections of the compartment-(30).

9. (Currently Amended) The method according to ~~preceding claims 5 and 6~~claim 6, ~~in which~~wherein the electrical fields comprise high-frequency alternating voltage components and direct voltage components generated simultaneously or alternately.

10. (Currently Amended) The method according to claim 7, ~~in which~~wherein a plurality of focusing potentials is generated with an electrode array-(43.1 to 43.11) between ~~the~~ two electrodes-(41, 42) and ~~in which~~wherein the particles are guided onto ~~the~~ different flow paths-(11, 12) in accordance with ~~their~~ electrical or geometric properties of the particles.

11. (Currently Amended) The method according to ~~at least one of the preceding claims 2 to 9~~claim 2, ~~in which~~wherein the particles-(20, 21, 22) are guided onto at least two separate flow paths-(11, 12).

12. (Currently Amended) The method according to claim 11, ~~in which~~wherein the at least two flow paths-(11, 12) empty into other, separate compartments-(35, 36) of the microsystem-(100).

13. (Currently Amended) The method according to claim 12, ~~in which~~wherein the at least two flow paths-(11, 12) empty into separate compartments-(35, 36) of the microsystem-(100) separated by compartment walls or electric barriers-(60).

14. (Currently Amended) The method according to claim 1, ~~in which~~wherein the direction of deflection runs parallel to the direction of flow and several focusing potentials are generated that are asymmetrically modulated in parallel with the direction of deflection and ~~in~~ which~~wherein~~ the particles run through the deflecting potential at different speeds.

15. (Currently Amended) The method according to ~~at least one of the preceding~~ claims ~~claim~~ 1, ~~in which~~wherein the particles-(20, 21, 22) flow in front of the electrodes on a dielectrophoretic or hydrodynamic sequencing element-(50).

16. (Currently Amended) The method according to ~~at least one of the preceding~~ claims ~~claim~~ 1, ~~in which~~wherein a pH gradient is generated in the channel-(30).

17. (Currently Amended) The method according to claim 16, ~~in which~~wherein the pH gradient is generated by electrical direct voltage fields provided for the electrophoretic separation of the particles.

18. (Currently Amended) The method according to ~~at least one of the preceding~~ claims ~~claim~~ 1, ~~in which~~wherein a detection of the particles takes place after the guiding of the particles onto the different flow paths-(11, 12).

19. (Currently Amended) The method according to ~~at least one of the preceding~~ claims ~~claim~~ 1, ~~in which~~wherein the deflecting and the focusing potentials are formed by several superposed alternating voltages with different frequencies.

20. (Currently Amended) The method according to ~~at least one of the preceding~~ claims ~~claim~~ 1, ~~in which~~wherein at least two deflecting potentials with different directions of deflection are generated.

21. (Currently Amended) A fluidic microsystem ~~with~~comprising:

~~[-]] at least one compartment-(30), through which a liquid with particles-(20, 21, 22) is adapted to flows through in a predetermined direction of flow, and~~

~~[-]] a first separating device for generating a deflecting potential in which and for moving the particles-(20, 21, 22) are moved in a direction of deflection, and characterized by~~

~~[-]] a second separating device with electrodes-(40) for generating at least one focusing potential so that the particles are moved by dielectrophoresis opposite to the direction of deflection.~~

22. (Currently Amended) The microsystem according to claim 21, ~~in which~~wherein the direction of deflection deviates from the direction of flow.

23. (Currently Amended) The microsystem according to claim 21 or 22, ~~in~~ ~~which~~wherein the first separating device is arranged for generating electrical, magnetic, optical and/or mechanical forces.

24. (Currently Amended) The microsystem according to claim 23, ~~in which~~wherein the first separating device comprises electrophoresis electrodes, a magnetic field device, a laser or an ultrasound source.

25. (Currently Amended) The microsystem according to ~~at least one of the preceding claims 21 to 24~~claim 21, ~~in which~~wherein the first and the second separating devices are arranged separately in different, successive sections of the at least one compartment-(30).

26. (Currently Amended) The microsystem according to claim 21, 23 or 25, ~~in~~ ~~which~~wherein the first and the second separating devices form a common deflection unit comprising the electrodes-(40).

27. (Currently Amended) The microsystem according to claim 26, ~~in which~~wherein the common deflection unit can be alternately controlled in time with alternating and direct voltages.

28. (Currently Amended) The microsystem according to claim 24, ~~in which~~ wherein an electrode array (43.1 to 43.11) ~~consisting of~~ comprising electrode strips is arranged between the ~~electrophoretic~~ electrophoresis electrodes (41, 42), ~~which~~ said strips ~~can be controlled~~ being individually controllable with high-frequency alternating voltages.

29. (Currently Amended) The microsystem according to claim 21, ~~in which~~ wherein the direction of deflection runs parallel to the direction of flow.

30. (Currently Amended) The microsystem according to ~~at least one of the preceding claims 21 to 29~~ claim 21, ~~in which~~ wherein the electrodes (40) are arranged on inner sides of the walls of the compartment (30).

31. (Currently Amended) The microsystem according to ~~at least one of the preceding claims 21 to 30~~ claim 21, ~~in which~~ wherein the compartment (30) empties into separate compartments (36, 36) of the microsystem (100).

32. (Currently Amended) The microsystem according to claim 31, ~~in which~~ wherein the compartments (35, 36) of the microsystem (100) are separated by compartment walls or electrical barriers (60).

33. (Currently Amended) The microsystem according to ~~at least one of the preceding claims 21 to 32~~ claim 21, ~~in which~~ wherein a dielectrophoretic or hydrodynamic aligning element (50) is arranged in front of the separating devices.